

10/616,919

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NEWS 5 FEB 05 German (DE) application and patent publication number format
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NEWS 10 MAR 29 WPIFV now available on STN
NEWS 11 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12 APR 26 PROMT: New display field available
NEWS 13 APR 26 IFIPAT/IFIUDB/IFICDB: New super search and display field
available
NEWS 14 APR 26 LITALERT now available on STN
NEWS 15 APR 27 NLDB: New search and display fields available
NEWS 16 May 10 PROUSDDR now available on STN
NEWS 17 May 19 PROUSDDR: One FREE connect hour, per account, in both May
and June 2004
NEWS 18 May 12 EXTEND option available in structure searching
NEWS 19 May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 20 May 17 FRFULL now available on STN
NEWS 21 May 27 STN User Update to be held June 7 and June 8 at the SLA 2004
Conference
NEWS 22 May 27 New UPM (Update Code Maximum) field for more efficient patent
SDIs in CAPLUS
NEWS 23 May 27 CAPLUS super roles and document types searchable in REGISTRY
NEWS 24 May 27 Explore APOLLIT with free connect time in June 2004

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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FILE 'HOME' ENTERED AT 16:11:46 ON 27 MAY 2004

=> s apparatus

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=> file caplus

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FULL ESTIMATED COST	2.31	2.31

FILE 'CAPLUS' ENTERED AT 16:18:24 ON 27 MAY 2004

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FILE COVERS 1907 - 27 May 2004 VOL 140 ISS 22

FILE LAST UPDATED: 26 May 2004 (20040526/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s apparatus

460486 APPARATUS

2291 APPARATUSES

462047 APPARATUS

(APPARATUS OR APPARATUSES)

655514 APP

3786 APPS

657344 APP

(APP OR APPS)

L1

846326 APPARATUS

(APPARATUS OR APP)

=> s l1 and reaction vessel

2698840 REACTION

1944853 REACTIONS

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    3602059 REACTION
        (REACTION OR REACTIONS)
    189626 VESSEL
    79027 VESSELS
    236281 VESSEL
        (VESSEL OR VESSELS)
    10933 REACTION VESSEL
        (REACTION(W) VESSEL)
L2      2716 L1 AND REACTION VESSEL

=> s 12 and base
    598750 BASE
    139318 BASES
    684366 BASE
        (BASE OR BASES)
L3      91 L2 AND BASE

=> s 12 and packing material
    70739 PACKING
    7024 PACKINGS
    73701 PACKING
        (PACKING OR PACKINGS)
    1254171 MATERIAL
    1699887 MATERIALS
    2541655 MATERIAL
        (MATERIAL OR MATERIALS)
    9514 PACKING MATERIAL
        (PACKING(W) MATERIAL)
L4      5 L2 AND PACKING MATERIAL

=> s 13 and packing material
    70739 PACKING
    7024 PACKINGS
    73701 PACKING
        (PACKING OR PACKINGS)
    1254171 MATERIAL
    1699887 MATERIALS
    2541655 MATERIAL
        (MATERIAL OR MATERIALS)
    9514 PACKING MATERIAL
        (PACKING(W) MATERIAL)
L5      0 L3 AND PACKING MATERIAL

=> s 14 and aerator
    2373 AERATOR
    1313 AERATORS
    3190 AERATOR
        (AERATOR OR AERATORS)
L6      0 L4 AND AERATOR

=> s 12 and aerator
    2373 AERATOR
    1313 AERATORS
    3190 AERATOR
        (AERATOR OR AERATORS)
L7      8 L2 AND AERATOR

=> s 17 and irrigat?
    24593 IRRIGAT?
L8      0 L7 AND IRRIGAT?
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=> dup rem 14 17
PROCESSING COMPLETED FOR L4
PROCESSING COMPLETED FOR L7
L9 13 DUP REM L4 L7 (0 DUPLICATES REMOVED)

=> d 19 hitstr ibib abs

L9 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:286639 CAPLUS
DOCUMENT NUMBER: 140:308631
TITLE: Procedure for biological purification of wastewater
INVENTOR(S): Vogelpohl, Alfons
PATENT ASSIGNEE(S): Technocon Gmbh, Germany
SOURCE: Ger. Offen., 7 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10245466	A1	20040408	DE 2002-10245466	20020928

PRIORITY APPLN. INFO.: DE 2002-10245466 20020928

AB Biol. purification of wastewater results by feeding wastewater and a gas (e.g., air or O2-enriched air) into a **reaction vessel** containing microorganisms through a binary nozzle consisting of 2 pipes arranged concentrically to each other. The nozzle with vertical axis reaches into the wastewater in the **reaction vessel**. The internal pipe of the binary nozzle for feeding gas is surrounded by the external pipe for feeding wastewater under inclusion of a free annular gap. The mixture of wastewater and a gas are circulated in the **reaction vessel** by using the binary nozzle. The internal pipe ends with a distance to the outlet of the external pipe of the binary nozzle. The outlet of the external pipe as well as the binary nozzle is placed from the **reaction vessel** bottom with a distance that is greater than the half height of the wastewater in the **reaction vessel**.

=> d 19 hitstr ibib abs 2-13

L9 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:522384 CAPLUS
DOCUMENT NUMBER: 137:67482
TITLE: **Apparatus** for mixing and aerating liquid-solid slurries
INVENTOR(S): Van Dijk, Gerard
PATENT ASSIGNEE(S): Can.
SOURCE: U.S. Pat. Appl. Publ., 5 pp., Cont.-in-part of U.S. Ser. No. 452,111, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2002089073 A1 20020711 US 2001-949152 20010907
US 6557835 B2 20030506

PRIORITY APPLN. INFO.: US 1999-452111 B2 19991130

AB An **apparatus** for dispersing a gas in a liquid or slurry has a **reaction vessel** with an inner zone for the downward flow of liquid, an outer zone for the upward flow of liquid, a plurality of **aerators** in the outer zone and a propeller to induce downward flow in the inner zone and promote mixing and circulation of the liquid/slurry. The **apparatus** is particularly suitable for use in the bacterial decomposition of organic waste matter, for efficiently aerating large vols. of waste/water slurries.

L9 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:416816 CAPLUS
DOCUMENT NUMBER: 135:9519
TITLE: **Apparatus** for mixing and aerating liquid-solid slurries
INVENTOR(S): Van Dijk, Gerard
PATENT ASSIGNEE(S): Can.
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001039872	A1	20010607	WO 2000-CA1432	20001129
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 1999-452111 A 19991130

AB An **apparatus** for dispersing a gas in a liquid or slurry has a **reaction vessel** with an inner zone for the downward flow of liquid, an outer zone for the upper flow of liquid, a plurality of **aerators** in the outer zone and a propeller to induce downward flow in the inner zone and promote mixing and circulation of the liquid/slurry. The **apparatus** is particularly suitable for use in the bacterial decomposition of organic waste matter, for efficiently aerating large vols. of wastewater slurries.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:542858 CAPLUS
DOCUMENT NUMBER: 129:206656
TITLE: Wastewater treatment **apparatus**
INVENTOR(S): Tsutsumi, Masahiko; Furube, Shosaburo; Kondo, Hirokazu; Noguchi, Kazuhiko; Oku, Mitsuo
PATENT ASSIGNEE(S): Toshiba Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

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DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10216766	A2	19980818	JP 1997-18887	19970131
PRIORITY APPLN. INFO.:			JP 1997-18887	19970131

AB The title **apparatus** is composed of a sedimentation pond equipped with an **aerator** for separation of suspended substances in waste water, a **reaction vessel** for decomposition of organic substances by aeration, and a second sedimentation pond for separation of a portion of excess sludges.

L9 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:560836 CAPLUS
DOCUMENT NUMBER: 125:203744
TITLE: Method for treatment of wastewater contaminated with cyanide ion
INVENTOR(S): Stevenson, Sanford M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5552062	A	19960903	US 1993-173360	19931223
PRIORITY APPLN. INFO.:			US 1993-173360	19931223

AB A method for treating waste water contaminated with cyanide ion, such as mine acid water is provided. The **apparatus** is readily portable and comprises a **reaction vessel** having an **aerator** motor operatively associated therewith. Water to be treated is received within the **reaction vessel** and is treated by having a neutralizing agent by way of chemical pumps and oxidant by way of the **aerator** introduced simultaneously into the system. Because of instantaneous elevation of pH resulting from the simultaneous introduction of oxidant and the neutralizing agent, the reaction time is greatly reduced and the equipment required is small, compact and easily transported. Where concns. of manganese are present in the wastewater being treated in this process, it is preferred that those manganese concns. be reduced before the method of the present invention is initiated.

L9 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1987:123183 CAPLUS
DOCUMENT NUMBER: 106:123183
TITLE: Integrated fuel cell and fuel conversion **apparatus**
INVENTOR(S): Sederquist, Richard A.
PATENT ASSIGNEE(S): International Fuel Cells Corp., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4642272	A	19870210	US 1985-812212	19851223
JP 62148303	A2	19870702	JP 1986-176552	19860725

PRIORITY APPLN. INFO.: US 1985-812212 19851223

AB A reaction **apparatus** constructed to alternately make a H-containing gas by cracking and catalytic steam reforming a hydrocarbon feedstock and to be regenerated comprises ≥ 1 **reaction vessel** having disposed in sequence from its upstream to downstream end a 1st volume of inert **packing material** containing no reform catalyst, a 2nd volume of material substantially adjacent the 1st volume and including a region of a reform catalyst material, and a 3rd volume of material substantially adjacent the 2nd volume. A H-containing gas is produced from a hydrocarbon feedstock and steam in a 3-zone **reaction vessel** by alternately making the gas in the **reaction vessel** and regenerating the vessel. A fuel-cell system comprises a fuel cell and a pair of 3-volume **reaction vessels**, each being adapted to alternately make a H-containing gas and to be regenerated. H is continuously supplied to the fuel cell from the pair of **reaction vessels** by making H in 1 of the pair of vessels while simultaneously regenerating the other and vice versa. An **apparatus**, process, and use for making H from 1 CH₄ and 3 mol steam by using heat stored in a vessel followed by the regeneration of the vessel to restore the heat are described.

L9 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:497194 CAPLUS

DOCUMENT NUMBER: 101:97194

TITLE: **Apparatus** and method for treating wastewater sludge

INVENTOR(S): Lynch, Joseph M.; Pfafflin, James R.; Pecker, Calman; Cardenas, Raul; Cunningham, Seamus; Bozzone, Richard T.; Borg, Sidney

PATENT ASSIGNEE(S): Process Research Development and Management, Inc., USA

SOURCE: Brit. UK Pat. Appl., 7 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2128980	A1	19840510	GB 1983-25917	19830928
GB 2128980	B2	19861001		
US 4464257	A	19840807	US 1982-429859	19820930
US 4500428	A	19850219	US 1984-637727	19840806

PRIORITY APPLN. INFO.: US 1982-429859 19820930

AB Sludge is treated sequentially in a pair of pressurized **reaction vessels**, the 1st with an **aerator** and H₂SO₄ and Cl₁ to oxidize and acidify the sludge, with a dewatering device upstream, and with an outlet coupled to the inlet of the 2nd vessel through another dewatering device. The 2nd vessel is a final treatment chamber in which the sludge is exposed to O₃, air, and lime. The sludge is recycled in the 1st vessel over a given time period before dewatering and transfer to the 2nd vessel. Solids and liqs. are separated from discharged sludge and the latter is returned to the 1st vessel.

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L9 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:170630 CAPLUS

DOCUMENT NUMBER: 90:170630

TITLE: **Apparatus** for generating bubbles without moving parts for air oxidation

INVENTOR(S): Nagao, Junichi; Machiguchi, Hiroyuki; Yamamichi, Yoshikazu

PATENT ASSIGNEE(S): Dowa Mining Co., Ltd., Japan

SOURCE: Belg., 18 pp.

CODEN: BEXXAL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 865724	A1	19780731	BE 1978-186596	19780405
PRIORITY APPLN. INFO.:			BE 1978-186596	19780405

AB The **aerator** consists of a closed, vertical vessel that is divided by a horizontal partition with ≥ 1 orifices and has inlets for air and the liquid in the lower chamber and outlets in the side wall of the upper chamber for the air-liquid mixture. The air inlets are in the form of vertical nozzles whose discharge openings are positioned slightly below the orifice plate and are coaxial with the orifices. The distance between the orifice plate and the top is short enough for the air-liquid jets to strike the top. The **aerator** is mounted in the bottom of a **reaction vessel**. The **aerator** is suitable for oxidizing SO₃2- in an aqueous solution

L9 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:140518 CAPLUS

DOCUMENT NUMBER: 84:140518

TITLE: Automatic device for determining the biochemical oxygen demand of waste and natural waters

INVENTOR(S): Kuz'min, A. A.; Belyakov, V. B.; Famin, B. V.; Krayushkin, A. M.

PATENT ASSIGNEE(S): "Agropribor" Scientific-Industrial Enterprises, USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obratzsy, Tovarnye Znaki 1975, 52(45), 59.

CODEN: URXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 494352	T	19751205	SU 1973-1979238	19731225
PRIORITY APPLN. INFO.:			SU 1973-1979238	19731225

AB The interconnected rotating circular adapter with **reaction vessels**, a control unit, fixation unit and a monitoring unit with an **aerator** and an O transducer, an amplifier, recorder and an actuating mechanism, contains, to improve the accuracy of determination and the reliability of operation, successively connected units for measuring and transforming the difference of concns. of O, a digital indicator, transcriber and a printer, as well as the air feed controller which is connected to the **aerator** through the actuating mechanism. The unit for measuring and transforming the difference of concns. of O is connected to the recorders directly, and through the amplifier to the O

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transducer and the air feed control, and through the control unit to fixation and monitoring units. The fixation unit is equipped with a grab-type electromagnetic clutch.

L9 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1951:34158 CAPLUS

DOCUMENT NUMBER: 45:34158

ORIGINAL REFERENCE NO.: 45:5920b

TITLE: Conversion of liquid hydrocarbons from mineral hydrocarbon oils into aromatic hydrocarbons and olefin-containing gases

INVENTOR(S): Steiner, Herbert; Huggett, Walter E.; Popper, Felix

PATENT ASSIGNEE(S): Petrocarbon, Ltd.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 650485		19510228	GB	
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AB Nonabsorptive ceramic packing for **reaction vessels**, used in the aromatization of hydrocarbons, provides improved resistance to disintegration during regeneration. One example is given.

L9 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1947:21646 CAPLUS

DOCUMENT NUMBER: 41:21646

ORIGINAL REFERENCE NO.: 41:4337e-f

TITLE: Data for equipment-cost estimates

AUTHOR(S): Bliss, Harding

CORPORATE SOURCE: Yale Univ., New Haven, CT

SOURCE: Chem. Eng. (1947), 54(No. 5), 126-38

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Data are given on pipe and tubing, fittings, heat exchangers, filters, vessels and columns, manholes, nozzles, thickeners, classifiers, evaporators and crystallizers, absorption towers and packings, tanks and storage vessels, liquid pumps, **reaction vessels**, and electric motors.

L9 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1939:13313 CAPLUS

DOCUMENT NUMBER: 33:13313

ORIGINAL REFERENCE NO.: 33:1996d-e

TITLE: Packing rings for towers, **reaction vessels**, absorption chambers, etc.

INVENTOR(S): Singer, Felix

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 492814		19380928	GB	
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AB These are provided with a partition that is twisted through 90° or 180° within the length of the cylinder and is cupped at either end. Two or more twisted partitions may be used; or a cylindrical partition within the ring may be provided with radiating twisted webs. The rings

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may be made by the pressing of stoneware dust, or of metal, or by extrusion with a rotating nozzle or table.

L9 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1931:5489 CAPLUS
DOCUMENT NUMBER: 25:5489
ORIGINAL REFERENCE NO.: 25:624f
TITLE: Fillers for towers, columns, etc.
INVENTOR(S): Eppinger, Gertrud nee Hellner
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 508062		19280911	DE	
AB	Fillers for washing towers, reaction vessels , fractionating columns, etc., are made of a synthetic resin, with or without a filling material.				

=> s 19 and (sulfuric acid or sulphuric acid)

L10 5 S L9
L11 8 S L9
120697 SULFURIC
3822176 ACID
1433151 ACIDS
4288919 ACID
(ACID OR ACIDS)
117629 SULFURIC ACID
(SULFURIC(W)ACID)
1807 SULPHURIC
3822176 ACID
1433151 ACIDS
4288919 ACID
(ACID OR ACIDS)
1679 SULPHURIC ACID
(SULPHURIC(W)ACID)
L12 0 (L10 OR L11) AND (SULFURIC ACID OR SULPHURIC ACID)

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
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